

BlueTraker

POWERING THE DATA AGE

BlueTraker VMS Solutions
for Fisheries Management

BlueTraker VMS transponder
TECHNICAL SPECIFICATION

Phycical	
External dimensions	198 mm (width) x 198 mm (length) x 67 mm (height)
Weight	1.140 g (including one back-up battery)
Housing	Double shell housing, light colour outer shell, resistant to UV solar radiation

Environmental	
Operating temperature	-40°C to +60°C (Arctic version) | -25°C to +60°C (Standard version)
Storage temperature	-25°C to +70°C
Humidity	From 10% to 100% Relative Humidity including condensation
Dust and water ingress	IP68 protection class (depth 6 m, duration 30 min.)
Vibration	IEC 60945:2002, 5 Hz - 13.2 Hz sweep sine, displacement 0.001 m, sweep rate 0.5 oct/min; 13.2 - 100 Hz sweep sine, acceleration amplitude 7 m/s^{-2}, sweep rate 0.5 oct/min

Electrical	
Input voltage range	9 V DC to 36 V DC (max. supply cable length: 50 m)
Nominal supply voltage	24 V DC or 12 V DC
Energy consumption (average)	2 W @ 12 V DC
Input protection	Resettable fuses, Level 4 ESD protection according to ISO 61000-4-2, Overvoltage protection above 36 V DC, Load Dump protection according to ISO 7637-2:2004(E) (pulse 5a), ISO16750-2:2002 (load dump)
Backup battery	Li-Ion rechargeable battery / 5300 mAh
Autonomy with backup battery	Standard battery: 7 days with 1 hour reporting interval at +23°C Larger capacity battery: 21 days with 1 hour reporting interval at +23°C

Satellite data communication	
Network	Iridium, Low Earth Orbit (LEO)
Satellites	Low earth orbit, total globe coverage, 66 satellites, mesh network
Frequency	1616 MHz to 1.626,5 MHz
Average radiated power	< 1 W
Antenna	Integrated, low profile, low elevation, optimised, high gain, custom designed antenna

GSM/GPRS channel (For Firmware Upgrades and Servicing)	
Supported bands	Quad Band 850/900/1800/1900 MHz
SIM card	Global SIM, supplied with the transponder
Data features GPRS	Embedded TCP/IP and UDP/IP protocol stack | Embedded FTP | SSL - Secure Encrypted Connection
Antenna GSM	Integrated, omnidirectional

Interface	
Wired	USB (ConBox with USB interface must be selected)
Wireless	WiFi, Bluetooth (optional items)

GPS/GLONASS positioning receiver	
Channels	33 tracking, 99 acquisition
Acquisition	Cold start 28 s, Hot start < 1 s, sensitivity -167 dBm @ tracking
Accuracy	5 m CEP
Antenna	Integrated patch antenna